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Cosmic Explorer: the proposed U.S. contribution to the third-generation gravitational-wave detector network. JOSHUA SMITH, California State University, Fullerton, COSMIC EXPLORER TEAM² — Cosmic Explorer (CE) is a 40 km L-shaped ground-based gravitational-wave observatory concept envisioned to begin operations in the 2030s. It is designed to be built in two phases, the first using scaled up Advanced LIGO+ technology, and the second incorporating new technologies and cryogenic temperatures. With its spectacular sensitivity, CE will observe gravitational-wave sources across the history of the universe. Sources that are barely detectable by today's instruments will be resolved with incredible precision.

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²See https://arxiv.org/abs/1907.04833

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